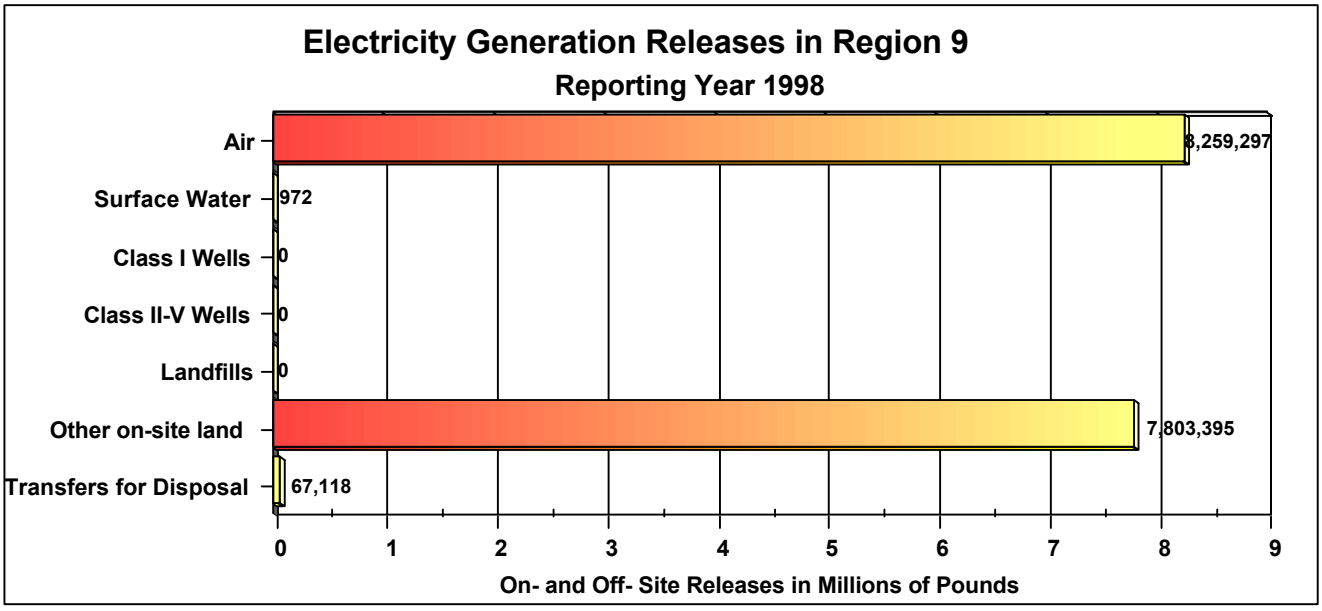
Electricity Generating Facilities: 1998 Toxics Release Inventory

U.S. EPA Region 9
Arizona, California, Hawaii, Nevada, and the Pacific Islands



Since 1986, the Toxics Release Inventory (TRI) has collected information on the annual release and management of toxic chemicals from manufacturing facilities. The reporting requirements were recently expanded, and the 1998 version of the Toxics Release Inventory contains the first reports from seven new industry sectors, including electricity generators. This fact sheet is designed to help people understand the information reported by electricity generating facilities.

What did electricity generators report as releases for 1998?

Nationally, the electric utility sector reported 1.1 billion pounds of releases, or 23% of the total releases from the new industries. 74% of the on-site releases from this sector were to the air.

In Region 9, 37 facilities reported 16.1 million pounds of releases. About half of these releases were on-site land and the other half were to the air. These facilities also reported that 2.8 million pounds of waste was treated on-site.

What are the reporting requirements for electricity generating facilities?

The TRI regulations require electric utilities to file reports documenting release amounts and waste management practices for every listed chemical used over threshold amounts. The reporting thresholds are 25,000 pounds for chemicals that are manufactured or processed and 10,000 pounds for chemicals that are otherwise used. Chemicals created during combustion, including new metal compounds, are considered manufactured.

What types of electricity generators report?

Only facilities that combust coal or oil to generate power for distribution in commerce are required to report. Kerosene and petroleum coke are considered as

the combustion of oil. Hydroelectric facilities and facilities that combust natural gas are not covered by the reporting requirements.

What activities generate releases that are reportable under TRI?

Electricity generating facilities typically report for TRI chemicals created during combustion. Impurities in the coal or oil contribute to releases of metal compounds and sulfur oxides during combustion.

These metals include barium, copper, chromium, manganese, lead, nickel and zinc. Often these metals can be found in the air emissions from the facility's stack, or as trace elements in the coal ash generated from coal combustion.

Other chemicals formed during combustion include hydrochloric acid, sulfuric acid, and hydrogen fluoride. These chemicals are typically released to the air from the facility's stacks.

Why do some electricity generating facilities have large releases of metals to the land?

Electricity generating facilities that combust coal generate large amounts of coal ash. Although this coal ash contains mostly silica, it also contains trace amounts of metal compounds. Large quantities of ash containing these metals may be disposed of in an on-site landfill or transferred to an off-site landfill or coal mine.

How can I get access to guidance documents about electric generating facilities?

You can contact the National Center for Environmental Publications and Information at (800) 490-9198 to access the following documents:
-- EPA's Toxics Release Inventory Industry Guidance Document: Electricity Generating Facilities. (EPA 745-B-99-003).
-- Profile of the Fossil Fuel Electric Power Generation Industry. (EPA 310-R-97-007)

How do I find out more?

The Toxics Release Inventory is a starting point for learning more about the toxic chemical releases in your community. We will be more than happy to answer your questions and assist you in learning more about the Toxics Release Inventory program and electricity generators in Region 9.

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